digested M13mp19. Thus, as in Example I, one set of oligonucleotides begins with the addition of A followed by nine rounds of split and mix synthesis wherein the oligonucleotide is extended subunit-wise by 3'-phosphoramidite derivatived 4-mers corresponding to the subunits of Table I. The synthesis is then completed with the nucleotide-by-nucleotide addition of one half of the Sma I recognition site (GGG), two C's, and a 5'-monophosphate, e.g. via the Phosphate-ON reagent available from Clontech Laboratories (Palo Alto, CA). The other set of oligonucleotides begins with the addition of three C's (portion of the Sma I recognition site) and two G's, followed by nine rounds of split and mix synthesis wherein the oligonucleotide is extended by 3'-phosphoramidite derivatized 4-mers corresponding to the complements of the subunits of Table I. Synthesis is completed by the nucleotide-by-nucleotide addition of the Hind III recognition site and a 5'-monophosphate. After separation from the synthesis supports the oligonucleotides are mixed under conditions that permit formation of the following duplexes (SEQ ID NO:18):

C4

5'-pGGGCC(w_i)(w_i)(w_i)(w_i)(w_i)(w_i)(w_i)(w_i)(w_i)A
CCCGG(**)(**)(**)(**)(**)(**)(**)(**)(**)TTCGAp-5'

The mixture of duplexes is then ligated into a Sma I/Hind III-digested M13mp19. A repertoire of tag complements are synthesized on CPG microparticles as described above."

5. Please amend the paragraph in column 25, lines 61-67, as follows:

C5

"After hybridization and ligation, as described in Example I, the loaded microparticles are treated with Fok I to produce a 4-nucleotide protruding strand of a predetermined sequence. A 10:1 mixture (probe 1:probe 2) of the following probes (SEQ ID NO:3, SEQ ID NO:8[~~, SEQ ID NO:9, and SEQ ID NO:10~~]) are ligated to the polynucleotides on microparticles."

IN THE SEQUENCE LISTING:

From columns 29 and 30, line 30, to columns 35 and 36, line 14, please delete the Sequence Listing and replace it with the following:

SUB D

```
--Sequence Listing

<110> Brenner, Sydney
<120> Compositons for Sorting Polynucleotides
<130> 802-04RE
<140> US 09/366,081
<141> 1999-08-02
<150> US 08/484,712
<151> 1995-06-07
<150> US 08/358,810
<151> 1994-12-19
<150> US 08/322,348
<151> 1994-10-13
<160> 19
<170> Microsoft Word97
```

<210> 1
<211> 38
<212> DNA
<213> Artificial Sequence
<220>
<223> Segment of vector.
<400> 1
gaggatgcct ttatggatcc actcgagatc ccaatcca 38

<210> 2
<211> 26
<212> DNA
<213> Artificial Sequence
<220>
<223> Adaptor.
<400> 2
aattcggatg atgcatgcat cgaccc 26

<210> 3
<211> 14
<212> DNA
<213> Artificial Sequence
<220>
<223> Adaptor.
<400> 3
tcgagtcatc cgat 14

<210> 4
<211> 39
<212> DNA
<213> Artificial Sequence
<220>
<223> Tag complement linked to solid phase support.
<400> 4
ddddddddddd ddddddddddd ddddddddddd ddddddtgg 39

<210> 5
<211> 68
<212> DNA
<213> Artificial Sequence
<220>
<223> Primer for synthesis of first strand of cDNA. Primer contains tag sequence.
<400> 5
ctagtcgacc ahhhhhhhhh hhhhhhhhhh hhhhhhhhhh hhhhhhhggt 50
ttttttttt tttttttt 68

<210> 6
<211> 11
<212> DNA
<213> Artificial Sequence
<220>
<221> any of a, c, g, t, or u at indicated position
<222> 1, 9-11

<223> a, c, g, t, or u
<400> 6
nrrgatcynn n 11

<210> 7
<211> 22
<212> DNA
<213> Artificial Sequence
<220>
<223> Adaptor.
<400> 7
gggtcgatgc atgcatcatc cg 22

<210> 8
<211> 10
<212> DNA
<213> Artificial Sequence
<220>
<223> Adaptor.
<400> 8
atcggatgac 10

<210> 9
<211> 43
<212> DNA
<213> Artificial Sequence
<220>
<223> Adaptor containing oligonucleotide tag.
<400> 9
tcgacchhhh hhhhhhhhhh hhhhhhhhhh hhhhhhhhhh hha 43

<210> 10
<211> 43
<212> DNA
<213> Artificial Sequence
<220>
<223> Adaptor containing oligonucleotide tag.
<400> 10
tcgacchhhh hhhhhhhhhh hhhhhhhhhh hhhhhhhhhh hha 43

<210> 11
<211> 16
<212> DNA
<213> Artificial Sequence
<220>
<223> Adaptor.
<400> 11
atcggatgac atcaac 16

<210> 12
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<221> any of a, c, g, t, or u at indicated position

<222> 1-3
<223> a, c, g, t, or u
<400> 12
nnnagttgat gtcatccgat 20

<210> 13
<211> 20
<212> DNA
<213> Artificial Sequence
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<221> any of a, c, g, t, or u at indicated position
<222> 1-3
<223> a, c, g, t, or u
<400> 13
nnncgttgat gtcatccgat 20

<210> 14
<211> 20
<212> DNA
<213> Artificial Sequence
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<221> any of a, c, g, t, or u at indicated position
<222> 1-3
<223> a, c, g, t, or u
<400> 14
nnnggttgat gtcatccgat 20

<210> 15
<211> 20
<212> DNA
<213> Artificial Sequence
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<221> any of a, c, g, t, or u at indicated position
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<223> a, c, g, t, or u
<400> 15
nnntgttgat gtcatccgat 20

<210> 16
<211> 37
<212> DNA
<213> Artificial Sequence
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<221> any of a, c, g, t, or u at indicated position
<222> 1-5, 10-23, 25-37
<223> a, c, g, t, or u
<400> 16
nnnnnggatg nnnnnnnnnn nnntnnnnnn nnnnnnn 37

<210> 17
<211> 43
<212> DNA
<213> Artificial Sequence
<220>
<223> Adaptor containing oligonucleotide tag.